U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

August 3, 2015

Exemption No. 12272
Regulatory Docket No. FAA–2015–2143

Mr. Cameron R Cloar-Zavaleta
Nixon Peabody, LLP
Counsel
One Embarcadero Center, 18th Floor
San Francisco, CA 94111−3600

Dear Mr. Cloar-Zavaleta:

This letter is to inform you that we have granted your request for exemption. It transmits our decision, explains its basis, and gives you the conditions and limitations of the exemption, including the date it ends.

By letter dated May 20, 2015, you petitioned the Federal Aviation Administration (FAA) on behalf of Pepper Construction Company (hereinafter petitioner or operator) for an exemption. The petitioner requested to operate an unmanned aircraft system (UAS) to conduct aerial imagery, inspection, and data collection services in construction.

See Appendix A for the petition submitted to the FAA describing the proposed operations and the regulations that the petitioner seeks an exemption.

The FAA has determined that good cause exists for not publishing a summary of the petition in the Federal Register because the requested exemption would not set a precedent, and any delay in acting on this petition would be detrimental to the petitioner.

Airworthiness Certification

The UAS proposed by the petitioner are the DJI Phantom 2 Vision + and DJI Inspire 1.

The petitioner requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*. In accordance with the statutory criteria provided in Section 333 of Public Law 112−95 in reference to 49 U.S.C. § 44704, and in consideration of the size, weight, speed, and limited operating area associated with the aircraft and its operation, the Secretary of Transportation has determined that this aircraft meets the conditions of Section 333. Therefore, the FAA finds that the requested relief from 14 CFR part 21, *Certification procedures for products and parts, Subpart H—Airworthiness Certificates*, and any associated noise certification and testing requirements of part 36, is not necessary.

The Basis for Our Decision

You have requested to use a UAS for aerial data collection[1]. The FAA has issued grants of exemption in circumstances similar in all material respects to those presented in your petition. In Grants of Exemption Nos. 11062 to Astraeus Aerial (*see* Docket No. FAA−2014−0352), 11109 to Clayco, Inc. (*see* Docket No. FAA−2014−0507), 11112 to VDOS Global, LLC (*see* Docket No. FAA−2014−0382), and 11213 to Aeryon Labs, Inc. (*see* Docket No. FAA−2014−0642), the FAA found that the enhanced safety achieved using an unmanned aircraft (UA) with the specifications described by the petitioner and carrying no passengers or crew, rather than a manned aircraft of significantly greater proportions, carrying crew in addition to flammable fuel, gives the FAA good cause to find that the UAS operation enabled by this exemption is in the public interest.

Having reviewed your reasons for requesting an exemption, I find that—

- They are similar in all material respects to relief previously requested in Grant of Exemption Nos. 11062, 11109, 11112, and 11213;
- The reasons stated by the FAA for granting Exemption Nos. 11062, 11109, 11112, and 11213 also apply to the situation you present; and
- A grant of exemption is in the public interest.

Our Decision

In consideration of the foregoing, I find that a grant of exemption is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. 106(f), 40113, and 44701, delegated to me by the Administrator, Pepper Construction Company is granted an exemption from 14 CFR §§ 61.23(a) and (c), 61.101(e)(4) and (5), 61.113(a), 61.315(a), 91.7(a), 91.119(c), 91.121, 91.151(a)(1), 91.405(a), 91.407(a)(1), 91.409(a)(1) and (2), and 91.417(a)

[1] Aerial data collection includes any remote sensing and measuring by an instrument(s) aboard the UA. Examples include imagery (photography, video, infrared, etc.), electronic measurement (precision surveying, RF analysis, etc.), chemical measurement (particulate measurement, etc.), or any other gathering of data by instruments aboard the UA.

and (b), to the extent necessary to allow the petitioner to operate a UAS to perform aerial data collection. This exemption is subject to the conditions and limitations listed below.

Conditions and Limitations

In this grant of exemption, Pepper Construction Company is hereafter referred to as the operator.

Failure to comply with any of the conditions and limitations of this grant of exemption will be grounds for the immediate suspension or rescission of this exemption.

1. Operations authorized by this grant of exemption are limited to the DJI Phantom 2 Vision + and DJI Inspire 1 when weighing less than 55 pounds including payload. Proposed operations of any other aircraft will require a new petition or a petition to amend this exemption.

2. Operations for the purpose of closed-set motion picture and television filming are not permitted.

3. The UA may not be operated at a speed exceeding 87 knots (100 miles per hour). The exemption holder may use either groundspeed or calibrated airspeed to determine compliance with the 87 knot speed restriction. In no case will the UA be operated at airspeeds greater than the maximum UA operating airspeed recommended by the aircraft manufacturer.

4. The UA must be operated at an altitude of no more than 400 feet above ground level (AGL). Altitude must be reported in feet AGL.

5. The UA must be operated within visual line of sight (VLOS) of the PIC at all times. This requires the PIC to be able to use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued airman medical certificate or U.S. driver's license.

6. All operations must utilize a visual observer (VO). The UA must be operated within the visual line of sight (VLOS) of the PIC and VO at all times. The VO may be used to satisfy the VLOS requirement as long as the PIC always maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times; electronic messaging or texting is not permitted during flight operations. The PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight. The PIC must ensure that the VO can perform the duties required of the VO.

7. This exemption and all documents needed to operate the UAS and conduct its operations in accordance with the conditions and limitations stated in this grant of

exemption, are hereinafter referred to as the operating documents. The operating documents must be accessible during UAS operations and made available to the Administrator upon request. If a discrepancy exists between the conditions and limitations in this exemption and the procedures outlined in the operating documents, the conditions and limitations herein take precedence and must be followed. Otherwise, the operator must follow the procedures as outlined in its operating documents. The operator may update or revise its operating documents. It is the operator's responsibility to track such revisions and present updated and revised documents to the Administrator or any law enforcement official upon request. The operator must also present updated and revised documents if it petitions for extension or amendment to this grant of exemption. If the operator determines that any update or revision would affect the basis upon which the FAA granted this exemption, then the operator must petition for an amendment to its grant of exemption. The FAA's UAS Integration Office (AFS−80) may be contacted if questions arise regarding updates or revisions to the operating documents.

8. Any UAS that has undergone maintenance or alterations that affect the UAS operation or flight characteristics, e.g., replacement of a flight critical component, must undergo a functional test flight prior to conducting further operations under this exemption. Functional test flights may only be conducted by a PIC with a VO and must remain at least 500 feet from other people. The functional test flight must be conducted in such a manner so as to not pose an undue hazard to persons and property.

9. The operator is responsible for maintaining and inspecting the UAS to ensure that it is in a condition for safe operation.

10. Prior to each flight, the PIC must conduct a pre-flight inspection and determine the UAS is in a condition for safe flight. The pre-flight inspection must account for all potential discrepancies, e.g., inoperable components, items, or equipment. If the inspection reveals a condition that affects the safe operation of the UAS, the aircraft is prohibited from operating until the necessary maintenance has been performed and the UAS is found to be in a condition for safe flight.

11. The operator must follow the UAS manufacturer's maintenance, overhaul, replacement, inspection, and life limit requirements for the aircraft and aircraft components.

12. Each UAS operated under this exemption must comply with all manufacturer safety bulletins.

13. Under this grant of exemption, a PIC must hold either an airline transport, commercial, private, recreational, or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, a possession, or the Federal

government. The PIC must also meet the flight review requirements specified in 14 CFR § 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.

14. The operator may not permit any PIC to operate unless the PIC demonstrates the ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption, including evasive and emergency maneuvers and maintaining appropriate distances from persons, vessels, vehicles and structures. PIC qualification flight hours and currency must be logged in a manner consistent with 14 CFR § 61.51(b). Flights for the purposes of training the operator's PICs and VOs (training, proficiency, and experience-building) and determining the PIC's ability to safely operate the UAS in a manner consistent with how the UAS will be operated under this exemption are permitted under the terms of this exemption. However, training operations may only be conducted during dedicated training sessions. During training, proficiency, and experience-building flights, all persons not essential for flight operations are considered nonparticipants, and the PIC must operate the UA with appropriate distance from nonparticipants in accordance with 14 CFR § 91.119.

15. UAS operations may not be conducted during night, as defined in 14 CFR § 1.1. All operations must be conducted under visual meteorological conditions (VMC). Flights under special visual flight rules (SVFR) are not authorized.

16. The UA may not operate within 5 nautical miles of an airport reference point (ARP) as denoted in the current FAA Airport/Facility Directory (AFD) or for airports not denoted with an ARP, the center of the airport symbol as denoted on the current FAA-published aeronautical chart, unless a letter of agreement with that airport's management is obtained or otherwise permitted by a COA issued to the exemption holder. The letter of agreement with the airport management must be made available to the Administrator or any law enforcement official upon request.

17. The UA may not be operated less than 500 feet below or less than 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC.

18. If the UAS loses communications or loses its GPS signal, the UA must return to a pre-determined location within the private or controlled-access property.

19. The PIC must abort the flight in the event of unpredicted obstacles or emergencies.

20. The PIC is prohibited from beginning a flight unless (considering wind and forecast weather conditions) there is enough available power for the UA to conduct the intended operation and to operate after that for at least five minutes or with the reserve power recommended by the manufacturer if greater.

21. Air Traffic Organization (ATO) Certificate of Waiver or Authorization (COA). All operations shall be conducted in accordance with an ATO-issued COA. The

exemption holder may apply for a new or amended COA if it intends to conduct operations that cannot be conducted under the terms of the attached COA.

22. All aircraft operated in accordance with this exemption must be identified by serial number, registered in accordance with 14 CFR part 47, and have identification (N−Number) markings in accordance with 14 CFR part 45, Subpart C. Markings must be as large as practicable.

23. Documents used by the operator to ensure the safe operation and flight of the UAS and any documents required under 14 CFR §§ 91.9 and 91.203 must be available to the PIC at the Ground Control Station of the UAS any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.

24. The UA must remain clear and give way to all manned aviation operations and activities at all times.

25. The UAS may not be operated by the PIC from any moving device or vehicle.

26. All Flight operations must be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:
    a. Barriers or structures are present that sufficiently protect nonparticipating persons from the UA and/or debris in the event of an accident. The operator must ensure that nonparticipating persons remain under such protection. If a situation arises where nonparticipating persons leave such protection and are within 500 feet of the UA, flight operations must cease immediately in a manner ensuring the safety of nonparticipating persons; and
    b. The owner/controller of any vessels, vehicles or structures has granted permission for operating closer to those objects and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.

    The PIC, VO, operator trainees or essential persons are not considered nonparticipating persons under this exemption.

27. All operations shall be conducted over private or controlled-access property with permission from the property owner/controller or authorized representative. Permission from property owner/controller or authorized representative will be obtained for each flight to be conducted.

28. Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA must be reported to the FAA's UAS Integration Office (AFS−80) within 24 hours. Accidents must be

reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: www.ntsb.gov.

If this exemption permits operations for the purpose of closed-set motion picture and television filming and production, the following additional conditions and limitations apply.

29. The operator must have a motion picture and television operations manual (MPTOM) as documented in this grant of exemption.

30. At least 3 days before aerial filming, the operator of the UAS affected by this exemption must submit a written Plan of Activities to the local Flight Standards District Office (FSDO) with jurisdiction over the area of proposed filming. The 3-day notification may be waived with the concurrence of the FSDO. The plan of activities must include at least the following:
    a. Dates and times for all flights;
    b. Name and phone number of the operator for the UAS aerial filming conducted under this grant of exemption;
    c. Name and phone number of the person responsible for the on-scene operation of the UAS;
    d. Make, model, and serial or N−Number of UAS to be used;
    e. Name and certificate number of UAS PICs involved in the aerial filming;
    f. A statement that the operator has obtained permission from property owners and/or local officials to conduct the filming production event; the list of those who gave permission must be made available to the inspector upon request;
    g. Signature of exemption holder or representative; and
    h. A description of the flight activity, including maps or diagrams of any area, city, town, county, and/or state over which filming will be conducted and the altitudes essential to accomplish the operation.

31. Flight operations may be conducted closer than 500 feet from participating persons consenting to be involved and necessary for the filming production, as specified in the exemption holder's MPTOM.

Unless otherwise specified in this grant of exemption, the UAS, the UAS PIC, and the UAS operations must comply with all applicable parts of 14 CFR including, but not limited to, parts 45, 47, 61, and 91.

This exemption terminates on August 31, 2017, unless sooner superseded or rescinded.

Sincerely,

/s/
John S. Duncan
Director, Flight Standards Service

Enclosures

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May 20, 2015

U.S. Department of Transportation
Docket Management System
1200 New Jersey Ave, SE
Washington, DC 20590

RE: Exemption Request Under Section 333 of the FAA Reform Act and Part 11 of the Federal Aviation Regulations

Dear Sir or Madam:

Pursuant to Section 333 of the FAA Modernization and Reform Act of 2012 (the "Reform Act" or "Section 333"), Subsection (f) of 49 U.S.C. § 44701, and 14 C.F.R. Part 11, Pepper Construction Company ("Pepper Construction") seeks an exemption from the Federal Aviation Regulations ("FARs") listed below and discussed in **Appendix A** to allow it to operate the DJI Phantom 2 Vision+ and DJI Inspire 1 small Unmanned Aircraft Systems (collectively, "sUAS"). Pepper Construction is a construction firm that constructs buildings and acts as a general contractor in a number of industries including, without limitation, healthcare, education, hospitality, industrial, entertainment and retail, office and corporate headquarters. Pepper Construction plans to use the sUAS for aerial imagery, inspection and data collection services for its projects at construction sites across the United States. The information collected by the sUAS will help Pepper Construction inspect, monitor and oversee its construction projects. This will in turn translate to improved and more real-time decisions in construction that will enhance overall safety and lead to economic efficiencies.

The safety and public benefits of using the sUAS in commercial construction applications are significant. The sUAS reduce the need to operate manned aircraft in unconventional operations, provide more accurate data in a manner that is more safe, economical and efficient, and with a reduced impact on the environment. Importantly, use of the sUAS also allows Pepper Construction to limit inspections and construction site monitoring that must otherwise be accomplished by individuals, often times involving lifts, ladders, scaffolds and other equipment at a height above the surface. Injuries and fatalities of construction workers performing such tasks are well-documented. Accordingly, use of the sUAS for these services will result in increased safety for construction workers.

Operations pursuant to the exemption will be subject to strict operating requirements and conditions to ensure at least an equivalent level of safety to currently authorized operations using manned aircraft and under conditions as may be modified by the FAA as required by Section 333. The Phantom 2 Vision+ weighs approximately 2.7 pounds (1,242 grams) and the Inspire 1 weighs approximately 6.5 pounds (2,935 grams). Both models are powered electrically via small, lithium polymer batteries that drive electric propellers. They operate at a cruising speed of no more than 22 meters per second (the Phantom Vision 2+ operates at a maximum of 15 m/s and the Inspire 1 at a maximum of 22 m/s). The sUAS were designed with extensive automated control features, redundant systems, and integrated fail-safes, and they will be operated under controlled conditions and at low altitudes in airspace that is limited in scope.

Though the sUAS may safely be operated by one person, flight operations performed pursuant to this exemption will consist of at least two people: a pilot-in-command (the "PIC") and visual observer. The PIC is responsible for the direct and safe operation of the sUAS, monitoring their status and flight dynamics while maintaining visual line of sight and keeping the flight within the manufacturer's specified limits in terms of wind, flight range, battery life, and other operating limitations. The observer will be responsible for monitoring the airspace for other aircraft and hazards, advising the PIC before and during flight of all such observed risks, and monitoring the controlled operating area. Individuals acting as the PIC will complete training specific to the sUAS. The PIC will be a certificated airman who holds either an airline transport, commercial, private, recreational or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, possession, or the federal government.

Because the sUAS will be used in lieu of comparatively higher risk operations now conducted with either fixed wing and rotary manned aircraft or by individuals, the FAA can have confidence that Pepper Construction's operations will achieve at least an equivalent level of safety and fulfill the Secretary of Transportation's responsibilities under Section 333(c) of the Reform Act to "establish requirements for the safe operation of such aircraft systems in the national airspace system." Moreover, the FAA has already granted many 333 exemption requests for operation of the sUAS models requested here. [*See*, *e.g*, FAA Exemption Nos. 11325; 11351; 11357; 11325, 11327.] Accordingly, it should grant this exemption request without delay.

Applicant Information

The name of the applicant is:

Pepper Construction Company

The primary contact for this application is:

Kevin Bredeson
Pepper Construction Company
411 Lake Zurich Road
Barrington, Illinois 60010
Phone: (847) 381-2760
E-mail: kbredeson@pepperconstruction.com

Exemptions Requested

Pepper Construction respectfully requests exemptions from the following regulations:[1]

14 C.F.R. Part 21, Subpart H;
14 C.F.R. § 91.7;
14 C.F.R. § 91.9(b)(2);
14 C.F.R. § 91.113;
14 C.F.R. § 61.113(a), (b);
14 C.F.R. § 61.133(a);
14 C.F.R. § 91.119(c);
14 C.F.R. § 91.121;
14 C.F.R. § 91.151;
14 C.F.R. § 91.203;
14 C.F.R. § 91.405(a) and (b);
14 C.F.R. § 91.407(a)(1);
14 C.F.R. § 91.409(a)(1)-(2); and
14 C.F.R. § 91.417(a).

THE APPLICABLE LEGAL STANDARD UNDER SECTION 333

Grant of this exemption application for use of the sUAS in precision aerial photography, data collection and inspection and monitoring applications will advance the Congressional mandate in Section 333 of the Reform Act to accelerate the introduction of UAS into the national airspace system ("NAS") if it can be accomplished safely. This law directs the Secretary of Transportation to consider whether certain UAS may operate safely in the NAS before completion of the rulemaking required under Section 332 of the Reform Act. In

[1] As set forth in Appendix B, Pepper Construction will operate under similar operating conditions as those required in the other grants of exemption, in which exemptions for certain FARs were deemed by the FAA as "not necessary." Accordingly, Pepper Construction does not request FAA exemption from 14 C.F.R. 45.23(b), 91.103, and 91.109(a). If the FAA determines that relief from these or any other regulation is required for the operations proposed herein, Pepper Construction will be happy to submit an amendment to this request and include justifications for those necessary additional exemptions.

making this determination, the Secretary is required to determine which types of UAS do not create a hazard to users of the NAS or the public, or pose a threat to national security in light of the following:

- The UAS's size, weight, speed, and operational capability;
- Operation of the UAS in close proximity to airports and populated areas; and
- Operation of the UAS within visual line of sight of the operator.

Reform Act § 333(a)(1). If the Secretary determines that such vehicles "may operate safely in the national airspace system, the Secretary shall establish requirements for the safe operation of such aircraft in the national airspace system." *Id.* §333(c) (emphasis added).[2]

The Federal Aviation Act expressly grants the FAA the authority to issue exemptions. This statutory authority, by its terms, includes exempting civil aircraft, as the term is defined under §40101 of the Act, from the requirement that all civil aircraft must have a current airworthiness certificate and those regulations requiring commercial pilots to operate aircraft in commercial service:

> The Administrator may grant an exemption from a requirement of a regulation prescribed under subsection (a) or (b) of this section or any of sections 44702-44716 of this title if the Administrator finds the exemption is in the public interest.

49 U.S.C. §44701(f). *See also* 49 USC §44711(a); 49 USC §44704.

The grant of the requested exemption is in the public interest based on the clear direction in Section 333 of the Reform Act; the additional authority in the Federal Aviation Act, as amended; the strong equivalent level of safety surrounding the proposed operations; and the significant public benefit, including enhanced safety and cost savings associated with transitioning to UAS for aerial imagery, data collection and inspection services. Pepper Construction therefore respectfully requests that the FAA grant the requested exemption without delay.

[2] This provision places a duty on the Administrator to not only process applications for exemptions under Section 333, but for the Administrator, if he deems the conditions proposed herein to require modification in order to allow approval, to supply conditions for the safe operation of the UAS. Pepper Construction welcomes the opportunity to consult with FAA staff to address any issues or concerns that this proposal may raise that FAA staff believes may require modification.

Airworthiness of the DJI Phantom 2 Vision+ and the DJI Inspire 1

One element of the exemption application involves evidence of the airworthiness of the sUAS. Pepper Construction believes that the sUAS have been shown to be airworthy and compliant with a significant level of safety. The many previous 333 Grants of Exemptions by the FAA further highlight that operations of the sUAS will not adversely affect safety when compared to similar operations conducted by aircraft that have been issued an airworthiness certificate under 14 C.F.R. Part 21, Subpart H. [*E.g.*, FAA Exemption Nos. 11357, 11325.]

To enhance safety, it is also important to note that the sUAS are equipped with automated features which enhance safe takeoff, flight, and landing in many conditions, further details of which are provided in the applicable DJI User Manuals.[3]

To maintain airworthiness, Pepper Construction will follow the inspection and maintenance programs designed specifically for the sUAS by their manufacturer, DJI. Those programs are enhanced by an inflight monitoring system for the sUAS that monitor current position, wind speed and direction, battery charge, flight time, and altitude, including both above the takeoff location and above sea level. If onboard sensors detect a critical situation at any time (low battery, close proximity to the ground, weak data link signal, etc.) the sUAS will automatically initiate a preprogrammed safety procedure. In the event of any malfunction, the sUAS will undergo all maintenance required by the manufacturer and undergo flight testing before recommencing commercial operations.

Proposed Operations and Associated Conditions

Pepper Construction intends to use the sUAS that weigh significantly less than 55 pounds for the purpose of collecting aerial photography and data, as well as aerial inspection and monitoring applications at commercial construction sites.

All of the sUAS operations will occur under tightly controlled conditions on privately owned land at the owner's request and consent, solely during daylight hours, and at altitudes well below that which would pose a risk to other aircraft. The operations will take place in areas away from people, crowds and airports. Moreover, due to the nature and purpose of the operations, Pepper Construction anticipates that it will fly the sUAS at relatively low altitudes and speeds. The risk of interference with another aircraft is therefore minimal.

[3] Pepper Construction submits the following documents, as proprietary and under confidentiality, in support of this exemption request: the DJI Inspire 1 Safety Guidelines v1.0, Inspire 1 User Manual v1.0, Inspire 1 Quick Start Guide v1.0, Inspire 1 Maintenance Manual v1.0, Intelligent Flight Battery Safety Guidelines v1.0, Phantom 2 Vision+ User Manual v1.8, Smart Flight Battery Guidelines, Phantom 2 Vision+ Pilot Training Guide v1.1, and the Phantom 2 Vision+ Quick Start Guide. At the request of the FAA, Pepper Construction will also be pleased to provide, under confidentiality, its sUAS General Operations Manual ("GOM").

Grant of this exemption to Pepper Construction will be subject to the conditions listed in **Appendix B**, which are based upon the operating conditions required by the FAA's previous grants of exemptions. The sUAS are characterized by a high degree of pre-programmed control and various built-in technical capabilities that limit the potential for operation outside of the conditions set forth in **Appendix B**. They were also designed with internal functional and safety features to assist the operator in safe and reliable operation. With pre-programmed flights and manual control, operators can easily maintain separation from manned aircraft operations and avoid other hazards. In the controlled environment under the operations conditions in **Appendix B**, operations will remain within visual line-of-sight (VLOS) and below 400 feet AGL. In addition, Pepper Construction will obtain a Certificate of Waiver or Authorization from the FAA Air Traffic Organization to address airspace requirements and provide notification by a Notice to Airman (NOTAM).

Operator Requirements

As a condition to the grant of the exemptions, Pepper Construction will require that the PIC hold either an airline transport, commercial, private, recreational or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, possession, or the federal government. The PIC will also be subject to the flight review requirements pursuant to the Federal Aviation Regulations ("FARs").

In addition, the PIC must complete a training program for each sUAS that he or she will operate for Pepper Construction. This training familiarizes the PIC to the operations and limitations of the sUAS. Training will also include discussions on the basic fundamentals of UAS aerodynamics and technical limitations, as well as the more general topics of weather, the National Airspace System, and the regulatory framework.

Pepper Construction does not believe that certified airmen, medical certificates, and the related operating conditions, are necessary or required to operate the sUAS. However, Pepper Construction will accept these requirements as a condition to the grant of this exemption. If, and when, the FAA finds such conditions unnecessary for operations conducted pursuant to Section 333 exemptions, Pepper Construction respectfully reserves the right to amend its operating conditions and request exemption from the relevant FARs to operate without such conditions.

Public Interest

The use of the sUAS in lieu of comparatively hazardous operations currently conducted with conventional fixed wing and rotary aircraft offers a net safety benefit and will achieve an enhanced level of safety, as mandated under Section 333(c) of the Reform Act. Approval of this application will also benefit the public interest by allowing better, safer, and more cost efficient information for Pepper Construction and the public. Moreover, it will lessen the need for

inspections by individuals that must often use equipment to observe construction sites from heights above the surface.

Conventional aerial photography, inspection and monitoring operations using manned aircraft involve heavy aerial aircraft that must transit from airports to the operational location, carrying significant amounts of combustible fuel, and a multi-person crew. Manned aircraft are also at risk of fuel spillage and fire in the event of an accident or incident. By contrast, use of the sUAS is safe, economical and efficient. The Phantom 2 Vision+ weighs approximately 2.7 pounds and the DJI Inspire 1 weighs approximately 6.5 pounds. Both sUAS are carried (not flown) to and from the area of activity, remove the need for an airborne crew, and pose less risk to people and infrastructure on the ground, as well as other aircraft.

No national security issue is raised by the grant of the requested exemptions. Given the size, load-carrying capacity, the speed at which the sUAS operates (less than 25 meters per second), and the fact that they do not carry explosives or other dangerous materials, the use of the sUAS pose no threat to national security. In fact, the threat of causing damage to property is significantly reduced with the extremely low weight of the sUAS and limited operating areas. Any other security concerns are ameliorated by the fact that all individuals holding an FAA airman certificate are subject to a security screening by the U.S. Department of Homeland Security. 49 U.S.C. § 44903(j)(2)(D)(i).

The grant of the requested exemption is in the public interest based on the clear direction in Section 333, the Federal Aviation Act,[4] the high and equivalent level of safety of the proposed operations, and the significant public benefit, including enhanced safety and cost savings to be realized as a result of the use of the sUAS for aerial imagery, data collection and inspections. It is also in-line with the previous Grants of Exemption by the FAA for the same and similar sUAS models. [FAA Exemption Nos. 11357, 11325, 11327.] Accordingly, Pepper Construction respectfully requests that the FAA grant an expedited exemption.

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[4] The Federal Aviation Act expressly grants the FAA the authority to issue exemptions: The Administrator may grant an exemption from a requirement of a regulation prescribed under subsection (a) or (b) of this section or any of sections 44702-44716 of this title if the Administrator finds the exemption is in the public interest. 49 U.S.C. § 44701(f).

Very truly yours,
NIXON PEABODY, LLP

Cameron R Cloar-Zavaleta

CRCZ

APPENDIX A

EXEMPTION REQUEST AND EQUIVALENT LEVEL OF SAFETY SHOWINGS UNDER APPLICABLE RULES SUBJECT TO EXEMPTION

14 C.F.R. Part 21, Subpart H: Airworthiness Certificates 14 CFR § 91.203(a)(1)

Section 91.203(a)(1) requires all civil aircraft to have a certificate of airworthiness. Part 21, Subpart H, entitled Airworthiness Certificates, establishes the procedural requirements for the issuance of airworthiness certificates as required by FAR § 91.203(a)(1). Given the very small size of the aircraft and the limited operating area associated with their utilization, it is unnecessary to go through the certificate of airworthiness process under Part 21 Subpart H to achieve or exceed current safety levels.[5]

Such an exemption meets the requirements of an equivalent level of safety under Part 11 and Section 333 of the Reform Act. The Federal Aviation Act and Section 333 of the Reform Act both authorize the FAA to exempt aircraft from the requirement for an airworthiness certificate, upon consideration of the size, weight, speed, operational capability, and proximity to airports and populated areas of the UAS involved.

In this case, an analysis of these criteria demonstrates that the sUAS operated without an airworthiness certificate, under the conditions proposed herein, will be at least as safe, or safer, than a conventional aircraft (fixed wing or rotorcraft) with an airworthiness certificate. The Phantom 2 Vision+ weighs approximately 2.7 pounds, and the DJI Inspire 1 weighs approximately 6.5 pounds. Neither model carries a pilot or passenger; they do not carry flammable fuel, and will operate exclusively within an area pre-disclosed and in compliance with conditions set forth herein. Operations under this exemption will be tightly controlled and monitored by the operator, pursuant to the conditions set forth in **Appendix B**, the applicable DJI manuals, the Pepper Construction sUAS General Operations Manual ("GOM"), and by local public safety requirements.

The FAA will have advance notice of all operations through the filing of NOTAMs. Receipt of the prior permission of the land owner (or lessee), the size of the aircraft, the lack of flammable fuel, and the fact that the aircraft is carried to the location and not flown there all establish the equivalent level of safety. The sUAS provide at least an equivalent level of

[5] The FAA has stated that no exemption is needed from this section if a finding is made under the Reform Act that the sUAS provide an equivalent level of safety when compared to aircraft normally used for the same application. These criteria are satisfied and therefore no exemption is needed. [*See*, *e.g.*, Exemption No. 11220 (an exemption from 91.203 not required for the Phantom).] However, Pepper Construction requests an exemption in the event that the FAA determines that some characteristics of the sUAS fail to meet the requirements of the Reform Act.

safety to that of such operations conducted with conventional manned aircraft that would be orders-of-magnitude larger and would be carrying passengers, cargo, and flammable fuel. The safety features including the redundant sensor systems, as described in the DJI User Manuals, and throughout this document, underscore the importance placed on safety and reliability in the design and manufacture of the sUAS.

14 C.F.R. § 91.7(a)-(b); Civil Aircraft Airworthiness

Section 91.7(a) requires that a civil aircraft must be in airworthy condition to be operated. In previous grants of exemption for the sUAS, the FAA concluded that an exemption was required under 14 C.F.R. § 91.7(a). In each instance, the FAA granted relief under § 91.7(a) through a requirement that each petitioner ensure that the sUAS is in an airworthy condition – based on compliance with the User Manual – prior to every flight. [*See,e.g,* Exemption No. 11220, p. 5.] Pepper Construction therefore requests that the FAA find similar relief under the same conditions here.

Section 91.7(b) places responsibility on the PIC to ensure an aircraft is in a condition safe for flight. In prior grants of exemption to the sUAS, the FAA determined that exemption from this section was not necessary. [*See*, *e.g.*, Exemption No. 11191; 11195; 11120.] To the extent that the FAA determines an exemption is required here, Pepper Construction respectfully requests that the FAA find compliance with the manufacturer's manuals, and requirements of the grant of exemption, a sufficient means for ensuring that the sUAS are in a condition for safe flight.

14 C.F.R. § 91.113; Right-of-Way Rules

Section 91.113 requires that vigilance be maintained by each person operating an aircraft to see and avoid other aircraft. Unlike manned aircraft, the sUAS pilot is not on-board the aircraft to observe and avoid other aircraft, operating the sUAS from the ground.

Pepper Construction's proposed operating conditions will achieve an equivalent or greater level of safety. All operations will involve two individuals—one FAA certificated pilot as the PIC and one visual observer who will monitor the immediate and surrounding airspace of the operation for potential obstruction hazards and other possible intrusions. The sUAS will also be limited to designated areas below 400 feet AGL and within a virtual fence. Pepper Construction will notify the FAA and other pilots of the sUAS operations by NOTAM.

14 C.F.R. § 61.113(a) & (b); 61.133(a): Private Pilot Privileges and Limitations; Pilot in Command; Commercial Pilot Privileges and Limitations

Section 61.113(a) & (b) limit private pilots to non-commercial operations. Unlike a conventional aircraft that carries a pilot, passengers, and cargo, the sUAS are remotely

controlled with no passengers or property of others on-board. Section 61.133(a) requires an individual with at least a commercial pilot's license to act as pilot in command of an aircraft for compensation or hire.

Pepper Construction respectfully proposes that operator requirements should take into account the characteristics of the particular UAS. Here, the sUAS have a high degree of pre-programmed control and various built-in technical capabilities that strictly limit the potential for operation outside of the operating conditions set forth in **Appendix B** and the exemption application. The small size, endurance, range and payload capacities of the sUAS mean that no passengers and/or cargo will ever be carried by the aircraft. Rather, commercial operations will be strictly limited to acquiring aerial imagery, data collection and inspections.

Considering these conditions, operating limitations and restrictions, an equivalent level of safety will be provided by allowing operation of the sUAS by Pepper Construction with individuals who possess a valid FAA airline transport, commercial, private, recreational or sport pilot certificate. The risks associated with the operation of the sUAS (given their small size, speed, operational capabilities and limitations, and lack of combustible fuel) are so diminished from the level of risk associated with commercial operations (and even operations permitted with a private pilot certificate) contemplated by Part 61 with manned aircraft, that allowing operations of the sUAS as set forth in **Appendix B** meets and exceeds the present level of safety provided under 14 C.F.R. § 61.113(a)-(b), and does not call for a commercial pilot certificate as set forth in § 61.133. [FAA Exemption No. 11357 (requiring at least a recreational or sport pilot certificate, and a current FAA airman medical certificate or valid U.S. driver's license).]

14 CFR § 91.119: Minimum Safe Altitudes

Section 91.119 establishes safe altitudes for operation of civil aircraft. Specifically, 91.119(c) limits aircraft flying over areas other than congested areas to an altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.

As set forth herein, the sUAS will not operate at higher than 400 feet AGL. The sUAS will, however, be operated to avoid congested or populated areas. Because aerial photography, data collection and inspection work must be accomplished at relatively low altitudes and at altitudes less than 500 feet AGL, an exemption from Section 91.119(c) is needed.

The equivalent level of safety will be achieved given the size, weight, speed, and material with which the sUAS are built. Also, all flights will be conducted over private and/or controlled-access property with the permission of the land owner or those who control the land. Because of the advance notice to the landowner, all affected individuals will be aware of the flights.

Compared to operations conducted with aircraft or rotorcraft weighing far more than the sUAS, and carrying flammable fuel, any risk associated with these operations will be significantly less than those currently allowed with conventional aircraft operating at or below 500 feet AGL. Indeed, the low-altitude operations of the sUAS will maintain separation from operations of conventional aircraft that must comply with Section 91.119.

14 C.F.R. § 91.151(a): Fuel Requirements for Flight in VFR Conditions

This regulation prohibits an individual from beginning "a flight in an airplane under VFR conditions unless (considering wind and forecast weather conditions) there is enough fuel to fly to the first point of intended landing and, assuming normal cruising speed – (1) During the day, to fly after that for at least 30 minutes; or (2) At night, to fly after that for at least 45 minutes."

The Phantom 2 Vision+ is powered by a removable, rechargeable, lithium-polymer battery that provides approximately 25 minutes of powered flight. Without an exemption from § 14 CFR 91.151, flights by Pepper Construction would not be possible. Given the limitations on the proposed operations and their locations, a less burdensome reserve requirement for flight in daylight VFR conditions is reasonable. Moreover, the Phantom 2 Vision+ provides low battery warnings that indicate the PIC must command the aircraft's return to the launch point when low battery capacity voltage is reached. A critical low battery warning is also provided. The aircraft will initiate an automatic descent and landing at the critical low battery warning.

The Inspire 1 is also powered by a removable, rechargeable, lithium-polymer battery that provides approximately 18 minutes of powered flight. Without an exemption from § 14 CFR 91.151, flights by Pepper Construction would not be possible. Given the limitations on the proposed operations and their locations, a less burdensome reserve requirement for flight in daylight VFR conditions is reasonable. Moreover, like the Phantom 2 Vision+, the Inspire 1 provides low battery warnings that indicate the PIC must command the aircraft's return to the launch point when low battery capacity voltage is reached. Likewise, a critical low battery warning is also provided. The aircraft will initiate an automatic descent and landing at the critical low battery warning.

An exemption from 14 CFR § 91.151(a) is safe and within the scope of the prior exemptions for the sUAS. [*See, e.g.,* Exemption No. 11195; 11191.] In line with the previous grants of exemption, Pepper Construction requests that the FAA grant relief under the condition that the PIC will not begin a flight unless (considering wind and forecast weather conditions) there is enough power to fly to the first point of intended landing and, assuming normal cruise speed, land the sUAS and to operate after that for at least 5 minutes. [*See* Exemption No. 11325.]

14 C.F.R. §§ 91.9(b)(2); 91.203(a)-(b); Carriage of Civil Aircraft Airworthiness Certificate and Registration

Sections 91.9(b) and 91.203(a)-(b) require an aircraft operator to carry airworthiness documents and other aircraft manuals onboard the aircraft at all times. Because the sUAS are small in size and do not contain a cabin or flight deck, carriage of such documents and manuals is impossible.

The intent of these regulations is to ensure that the PIC has access to important documents during flight. Here, an equivalent level of safety is achieved if the PIC has access to the applicable sUAS manual(s), registration certificate and other required documents from the Ground Control Station from which he or she is conducting operations. This is consistent with a prior opinion of the FAA Office of the Chief Counsel, and other grants of exemptions for commercial UAS operations. [*See* Memorandum from Mark Bury, FAA Assistant Chief Counsel for International Law, Legislation and Regulation, to John Duncan, FAA Flight Standards Service (Aug. 8, 2014).]

14 C.F.R. § 91.121: Altimeter Settings

Section 91.121 requires that each individual operating an aircraft shall maintain the cruising altitude or flight level of that aircraft, as the case may be, by reference to an altimeter that is set, when operating below 18,000 feet MSL to:

- The current reported altimeter setting of a station along the route and within 100 nautical miles of the aircraft;
- If there is no station within the area prescribed in paragraph (a)(1)(i) of this section, the current reported altimeter setting of an appropriate available station;
- In the case of an aircraft not equipped with a radio, the elevation of the departure airport or an appropriate altimeter setting available before departure.

To provide an equivalent level of safety, the sUAS autopilot calculates the reference altitude (ground level) with on-board GPS. The altitude information generated from the GPS is transmitted to the PIC. The PIC shall confirm the altitude of the launch site shown on the GPS altitude indicator before flight. The FAA has granted relief from this section in prior grants of exemption under the condition that the operator set the altimeter to zero feet AGL rather than local barometric pressure or field altitude before each flight. [Exemption Nos. 11062 and 11067.] A similar grant of exemption is thus warranted here.

14 C.F.R. §§ 91.405(a); 407(a)(1); 409(a)(2); 417(a): Maintenance Inspections

Section 91.405(a) requires that an aircraft operator or owner "shall have that aircraft inspected as prescribed in subpart E of this part and shall between required inspections, except as provided in paragraph (c) of this section, have discrepancies repaired as prescribed in part 43 of this chapter...." Section 91.407 similarly makes reference to requirements in Part 43; Section 91.409(a)(2) requires an annual inspection for the issuance of an airworthiness certificate. Section 91.417(a) requires the owner or operator to keep records showing certain maintenance work that has been accomplished by certificated mechanics, under Part 43, or licensed pilots and records of approval of the aircraft for return to service.

An equivalent level of safety will be achieved because the sUAS are small in size, will solely operate in limited and predetermined areas, and are not large, complex mechanical machines. Pepper Construction will perform all maintenance and inspections in accordance with the manufacturers' manuals and any required manufacturer Safety or Service Bulletins. In addition, the PIC will conduct a pre-flight inspection of the sUAS and all associated equipment to account for all discrepancies and/or inoperable components. Maintenance will be performed and verified to address any conditions potentially affecting safe operation of the sUAS and no flights will occur unless and until all flight critical components of the sUAS have been found to be in a condition for safe operation. A functional flight test will be conducted following the replacement of any flight-critical components.

APPENDIX B

PEPPER CONSTRUCTION COMPANY OPERATING RESTRICTIONS AND LIMITATIONS

1) Operations authorized by this grant of exemption are limited to the DJI Phantom 2 Vision+, which weighs approximately 2.7 pounds, and the DJI Inspire 1, which weighs approximately 6.5 pounds (collectively, the "sUAS"). Proposed operations of any other aircraft will require a new petition or a petition to amend this grant.

2) The sUAS shall not be flown at a ground speed exceeding 87 knots (100 miles per hour).

3) Above Ground Level ("AGL") altitude shall be restricted to 400 feet. All altitudes reported to Air Traffic Control ("ATC") shall be in feet AGL.

4) The sUAS shall be operated within Visual Line-of-Sight ("VLOS") of the pilot-in-command ("PIC") and visual observer at all times. The PIC must use human vision unaided by any device other than corrective lenses, as specified on the PIC's FAA-issued medical certificate.

5) All operations must utilize a visual observer ("VO"). The VO may be used to satisfy the VLOS requirement as long as the PIC maintains VLOS capability. The VO and PIC must be able to communicate verbally at all times. The PIC must be designated before the flight and cannot transfer his or her designation for the duration of the flight.

6) Any and all additional requirements identified in the exemption grant by the FAA shall be added to the sUAS General Operations Manual ("GOM"). The GOM must be maintained and made available to the Administrator upon request. If a discrepancy exists between the conditions and limitations in the granted exemptions and the GOM, the conditions and limitations in the granted exemptions shall take precedence and must be followed. Otherwise, the operator must follow the procedures outlined in the GOM.

   The operator may update or revise its GOM. It is the operator's responsibility to track such revisions and present updated and revised documents to the Administrator upon the request. The operator must also present updated and revised documents if it petitions for an extension or amendment of the granted exemptions. If the operator determines that

any update or revision would affect the basis upon which the FAA granted the exemptions, then the operator must petition for amendment to its exemptions. The FAA's UAS Integration Office (AFS-80) may be contacted if questions arise regarding updates or revisions to the GOM.

7) Prior to each flight the PIC must inspect the sUAS to confirm that it is in a condition for safe flight. The preflight inspection shall account for all discrepancies (*i.e.*, inoperable components, items, or equipment). The PIC shall not operate the aircraft if the inspection reveals a condition that affects the safe operation of the sUAS until the necessary maintenance has been performed and the sUAS is found to be in a condition for safe flight. The Ground Control Station ("GCS") shall be included in the preflight inspection.

8) Any sUAS that has undergone maintenance or alterations that affect the sUAS operation or flight characteristics (*e.g.*, replacement of a flight critical component) must undergo a functional test flight. The PIC who conducts the functional test flight must make an entry in the sUAS aircraft records.

9) Pepper Construction must follow the manufacturer's aircraft/component maintenance, overhaul, replacement, inspection, and life limit requirements.

10) Pepper Construction shall carry out its maintenance, inspections, and record keeping requirements, in accordance with the manufacturer's manuals and instructions. Maintenance, inspection, and alterations must be noted in the aircraft records, including total flight hours, description of work accomplished, and the signature of the authorized PIC or technician returning the sUAS to service.

11) The PIC must make a record entry in the aircraft records of the corrective action taken against discrepancies discovered between inspections.

12) The PIC must possess either an airline transport, commercial, private, recreational or sport pilot certificate. The PIC must also hold a current FAA airman medical certificate or a valid U.S. driver's license issued by a state, the District of Columbia, Puerto Rico, a territory, a possession, or the federal government. The PIC must also meet the flight review requirements specified in 14 C.F.R. § 61.56 in an aircraft in which the PIC is rated on his or her pilot certificate.

13) Pepper Construction will not permit any PIC to operate the sUAS unless and until that PIC demonstrates the ability to safely operate the sUAS in a manner consistent with how the sUAS will be operated pursuant to this exemption, including evasive and emergency maneuvers and maintaining appropriate distances from people, vessels, vehicles and structures. PIC qualification flight hours and currency must be logged in a manner consistent with 14 C.F.R. § 61.51(b).

14) The sUAS shall not be operated directly over any person, except authorized and consenting individuals, or below an altitude that is hazardous to persons or property on the surface in the event of an sUAS failure or emergency.

15) Operating of the sUAS may be conducted at distances less than 500 feet from participating persons, vessels, vehicles or structures that perform an essential function in connection with these special purpose operations. Operations closer than 500 feet from the PIC, visual observer, operator trainees, and essential persons, are permitted when operationally necessary; but never so close as to present an undue hazard, per § 91.119(a).

16) Operation of the sUAS must be conducted at least 500 feet from all nonparticipating persons, vessels, vehicles, and structures unless:

> a. the aircraft is operated near vessels, vehicles or structures where the land owner/controller has granted permission and the PIC has made a safety assessment of the risk of operating closer to those objects and determined that it does not present an undue hazard.

17) If the sUAS loses communications or loses its GPS signal, the sUAS must return to a pre-determined location within the operational area and land or be recovered in accordance with the manufacturer's user manuals.

18) The PIC must abort the flight in the event of unpredicted obstacles or emergencies.

19) The PIC is prohibited from beginning a sUAS flight unless (considering wind and forecast weather conditions) there is enough power to fly to the intended point of landing and, assuming normal cruising speed, operate after that for at least 5 minutes.

20) Pepper Construction shall obtain an Air Traffic Organization (ATO) issued Certificate of Waiver of Authorization (COA) prior to conducting any operation. This COA will also require the filing of the NOTAM not more than 72 hours in advance, but not less than 48 hours prior to the operation.

21) All aircraft operated in accordance with the requested exemption must be identified by serial number, registered in accordance with 14 C.F.R. Part 47, and have identification (N-Number) markings in accordance with 14 C.F.R. Part 45, Subpart C. Markings shall be as large as practicable.

22) Each sUAS must comply with all manufacturer System and Safety Bulletins.

23) The radio frequency spectrum used for operation and control of the sUAS must comply with Federal Communication (FCC) or other appropriate government oversight agency requirements.

24) The documents required under 14 C.F.R. §§ 91.9 and 91.203 shall be available to the operator at the Ground Control Station of the sUAS any time the aircraft is operating. These documents must be made available to the Administrator or any law enforcement official upon request.[6]

25) The sUAS must remain clear and yield the right of way to all other manned operations and activities at all times (including, without limitation, ultralight vehicles, parachute activities, parasailing activities, hang gliders, etc.).

26) Operations shall occur under Visual Meteorological Conditions (VMC); flights under special visual flight rules (SVFR) shall not be conducted.

27) The sUAS shall not be operated from any moving device or vehicle.

28) The sUAS shall not be operated closer than 500 feet below or 2,000 feet horizontally from a cloud or when visibility is less than 3 statute miles from the PIC.

29) Operations shall not occur in congested or densely populated areas. The sUAS may not operate in Class B, C, D or E airspace without written approval from the controlling authority. Operations will not be conducted within a 5 NM range of the geographic center of an airport as denoted on a current FAA-published aeronautical chart unless permission has been obtained from the local control tower or, in the case of a non-towered airport, written notice has been provided to the airport's management, and the operation is conducted in accordance with a NOTAM as required by the grant of this exemption.

30) All operations shall be conducted over private and/or controlled-access property with permission from the landowner/controller or authorized representative. Permission from the landowner, controller, manager or authorized representative will be obtained for each flight to be conducted.

31) Any incident, accident, or flight operation that transgresses the lateral or vertical boundaries of the operational area as defined by the applicable COA shall be reported to

[6] This is consistent with an FAA Office of Chief Counsel Opinion, dated August 8, 2014, and prepared by Dean E. Griffith, AGC-220, in which it was acknowledged that the intent of 14 C.F.R. § 91.9(b) and 91.203(a), (b) is met if the PIC of the UAS has access to the aircraft flight manual, registration certificate, and other required documents from the ground control station from which he or she is operating the UAS. Memorandum from Mark Bury, FAA Assistant Chief Counsel for International Law, Legislation and Regulation, to John Duncan, FAA Flight Standards Service (Aug. 8, 2014).

the FAA's UAS Integration Office (AFS-80) within 24 hours. Accidents shall be reported to the National Transportation Safety Board (NTSB) per instructions contained on the NTSB Web site: www.ntsb.gov.

32) sUAS operations may not be conducted during night, as defined by 14 C.F.R. § 1.1.

APPENDIX C

FEDERAL REGISTRY SUMMARY

Pursuant to 14 C.F.R. Part 11, Pepper Construction offers the following summary for publication in the Federal Register, should publication be necessary:

> Pepper Construction seeks an exemption from the following rules:
>
> 14 C.F.R. Part 21, Subpart H; 14 C.F.R. § 91.7; 14 C.F.R. § 91.9(b)(2); 14 C.F.R. § 91.113; 14 C.F.R. § 61.113(a)-(b); 14 C.F.R. § 61.133(a); 14 C.F.R. § 91.119(c); 14 C.F.R. § 91.121; 14 C.F.R. § 91.151; 14 C.F.R. § 91.203; 14 C.F.R. § 91.405(a)-(b); 14 C.F.R. § 91.407(a)(1); 14 C.F.R. § 91.409(a)(1)-(2); and, 14 C.F.R. § 91.417(a).

Approval of these exemptions will permit Pepper Construction to conduct commercial unmanned aircraft systems ("UAS") operations in commercial construction applications. The exemptions will enhance safety by reducing risk to the general public and property owners from the risk and hazards associated with performing equivalent work through individual construction workers and conventional manned aircraft.